

Date: April 20, 2021

To: Chair and Members of General Committee

From: Shari Lichterman, CPA, CMA, Commissioner of  
Community Services

Originator's files:

Meeting date:  
May 12, 2021

## **Subject**

**Single Source Procurement of Zoll AED3 Defibrillators**

## **Recommendation**

1. That Zoll Medical Canada, Inc. be approved as a single source supplier for the supply, delivery and maintenance of 62 frontline semi-automatic defibrillator units for use by Mississauga Fire & Emergency Services (MFES) for a period of 5 years, with the option to extend the term for an additional 5 years (Purchase).
2. That the Purchasing Agent or designate be authorized to execute all contracts and related ancillary documents with respect to the Purchase between the City and Zoll Medical Canada, Inc. for an estimated amount of \$170,000 exclusive of taxes and consumables.

## **Executive Summary**

- The original purchase of the current 54 Zoll Automated External Defibrillator (AED) Pro units was made over 12 years ago; the defibrillators are now nearing end of life and the current process of data transmission via USB and e-mail is outdated.
- This procurement includes utilizing Zoll Canada's secure online hosting environment where cardiac arrest event data can be uploaded, analysed, stored, and shared with medical professionals. Zoll's online environment provides automatic reporting of AED status, along with the ability to perform software upgrades on the AED devices remotely.
- Zoll Canada has an 80% market share across Canada, and is the only provider within the Region of Peel and the GTA. Compatibility of equipment across the Region with a consistent user interface will allow MFES staff a seamless transition to the new Zoll 3 AED, which will eliminate service gaps when responding to sudden cardiac arrest events.
- It is beneficial for MFES to remain compatible with the regional standard, which has established Zoll as the single source provider. As a result, Zoll is uniquely qualified. Section "A" of the Purchasing By-law provides for single source awards when (iv) *"the complete item, services, or system is unique to one vendor and no alternative or substitutes exists within Canada"*.

- The financial impact for the capital purchase of the defibrillator units will be approximately \$170,000, including a credit of approximately \$10,800 for the trade-in of the existing 54 units.

## Background

Each year, MFES responds to approximately 300 sudden cardiac arrest emergencies within the City of Mississauga. When most patients go into cardiac arrest, their initial cardiac rhythm will be ventricular fibrillation: a rapid and unsynchronized heart rhythm that originates in the heart's lower chambers (the ventricles). The heart must be "defibrillated" quickly in order to stop the unsynchronized rhythm as a victim's chance of surviving drops by 7-10% for every minute a normal heartbeat is not restored. The easiest way to defibrillate the heart is by utilizing an AED, which is a lightweight, portable device that delivers an electric shock through the chest to the heart. The shock has the potential to stop an irregular heartbeat (arrhythmia) and allow a normal rhythm to resume following sudden cardiac arrest.

MFES currently uses the Zoll AED Pro model defibrillator. This model has been resilient through the years to the physical demands of the Fire Service, while continuing without fail to treat patients in sudden cardiac arrest. The units have reached end of life.

## Comments

### Data Storage and Access

Zoll Canada provides a secure online hosting environment where cardiac arrest event data can be uploaded, analysed, stored, and shared with medical professionals. Zoll's online environment provides automatic reporting of AED status, along with the ability to perform software upgrades on the AED devices remotely. Personal information will NOT be stored, accessed, transmitted, disclosed, or used outside of Canada. Patients may request access to their own medical data. The new cloud solution is more secure and reliable than the current manual solution.

The City of Mississauga Cyber Security Team has reviewed the security and data handling and there were no concerns noted.

### Compatibility

Compatibility of the Zoll defibrillator refers to the ability to move between a public access defibrillator within Mississauga, to the MFES defibrillator, and finally the Peel EMS defibrillator. Currently, the entire Region of Peel has opted for the Zoll defibrillator that includes the following organizations:

- The City of Mississauga Public Access Defibrillator Program
- Peel Regional Paramedic Services (PRPS)
- Brampton Fire & Emergency Services
- Caledon Fire & Emergency Services

- GTAA Public Access Program
- GTAA Fire & Emergency Services

The advantage of remaining with Zoll defibrillator is that the CPR and defibrillator pads applied to the chest from a Zoll product can be used with any Zoll product. The most significant compatibility consideration is the seamless transition between MFES and PRPS during sudden cardiac arrest treatment. The defibrillator pads can be unplugged from MFES equipment and immediately plugged into the Paramedic defibrillator, providing a consistent process with CPR feedback for the user that is familiar to MFES staff.

Defibrillator pads do not only allow for the electrical energy from the defibrillator to be applied to the patient, but also visual feedback on the digital screen of the defibrillator as to the rate of compression, depth of compression, and recoil off the chest. Currently, the feedback mechanisms between MFES and PRPS are compatible, which improves patient care through instant visual and auditory signals.

MFES training equipment is only compatible with Zoll products – changing providers will require increased capital costs. The new Zoll 3 Defibrillator has a similar footprint to the current Zoll AED Pro model – this ensures the equipment will fit within the new MFES Medical Bags. Current Zoll Defibrillator consumables (pads and cables) are compatible with the Zoll AED 3 and can be used with no loss of consumable stock.

It is beneficial for MFES to remain compatible with the regional standard which has established Zoll as the single source provider. As a result, Zoll is uniquely qualified. Section “A” of the Purchasing By-law provides for single source awards when (iv) *“the complete item, services, or system is unique to one vendor and no alternative or substitutes exists within Canada”*.

Materiel Management has reviewed this report and supports the recommendation from a procurement perspective.

## Financial Impact

The financial impact for the capital purchase of the defibrillator units will be approximately \$170,000 and includes a trade-in credit of approximately \$10,800 for the trade-in of the existing 54 units.

## Conclusion

Zoll Medical Canada has had a longstanding relationship with MFES and the City of Mississauga as a whole, and has provided excellent service in the area of defibrillator sales, maintenance and technical support for over a decade. In addition to providing the City of Mississauga with equipment for the Public Access Defibrillator Program, Zoll Canada has maintained an 80% market share across Canada, and is the only provider within the Region of Peel, and the GTA.

Compatibility of equipment across the Region with a consistent user interface will allow MFES staff a seamless transition to the new Zoll 3 AED, which will eliminate service gaps when responding to sudden cardiac arrest events, opposed to retraining on an unfamiliar device. Quality assurance and record keeping will be enhanced with an automated program with improved data security, versus the current process developed “in-house” at MFES.

The administrative efforts of reporting to the MFES Medical Director, as well as the requirements under the data sharing agreements currently in place for cardiac arrest research will be improved via an automated system for external reporting. This will increase capacity of MFES staff as well as increase accuracy when retrieving cardiac arrest data from the defibrillator units.

## Attachments

Appendix 1: Statement of Work



Shari Lichterman, CPA, CMA, Commissioner of Community Services

Prepared by: John Crozier, Assistant Chief, Capital Assets, Mississauga Fire and Emergency Services